Feldhahn, Brett

From: Josh Bale <jbale@gsiws.com>
Sent: Friday, October 29, 2021 1:20 PM
To: Feldhahn, Brett
Cc: Georgia Baxter; Katie Lippard; Josh Bale
Subject: RE: Comments on J.H. Baxter Draft Source Area Investigation and Study Workplan
Attachments: 2021_Baxter_Source_Study-Final-20211029.pdf; 2021_Baxter_Source_Study-Final-20211029-Redline.pdf

Brett,

Attached is the Final Source Area Investigation and Study Workplan. I have provided a redline of the texts and complete final package. Responses to your comments are below. Thanks.

Josh Bale, P.E.
Supervising Civil/Environmental Engineer
direct: 971.200.8502 | mobile: 530.276.4188
GSI Water Solutions, Inc. | www.gsiws.com

From: Feldhahn, Brett [mailto:Feldhahn.Brett@epa.gov]
Sent: Tuesday, September 28, 2021 1:52 PM
To: Josh Bale <jbale@gsiws.com>; Georgia Baxter <gbaxter@jhbaxter.com>
Subject: Comments on J.H. Baxter Draft Source Area Investigation and Study Workplan

Georgia and Josh,

I've finished reviewing the Draft Source Area Investigation and Study Workplan. Please address the following comments and submit a revised workplan for approval:

1. The workplan lacks a schedule of work. Finalize a schedule and incorporate it into the Workplan.

   An estimated schedule of work has been provided as Attachment C, and is referenced in Section 13. Please note this schedule is subject to Stella Jones agreement on actual dates of field efforts as they are actively performing operations at the facility. Baxter will reach out to Stella Jones as the timeframe for the field efforts gets closer and any adjustments to actual field dates will be communicated to EPA.

2. Section 6.3 introduces a >90% objective for the reduction of PCP and PAHs. Explain the reasoning behind the >90% objective.

   Baxter have removed reference to a >90% objective for determination of whether the initial bench study achieves objectives and refined objective to reduction below the 20x RCRA TCLP limit. Ultimately we are simply trying to determine how significant of a reduction can be cost effectively achieved. It should also be noted, <90% reduction will be used as a criteria to determine whether polishing with aerobic processes should be considered at the completion of the initial bench study for surfactant and chemical oxidation studies.

3. Section 6.4 indicates that the treated samples will be allowed to react for no less than 90 days. Explain why a 90-day minimum is needed for the study.

GSI contacted ReSolution Partners (the subcontractor who would perform the bench studies) and received feedback that a minimum of 90 days for aerobic study reaction was selected based on cursory literature review and discussion with vendors. Baxter has added this explanation to Section 6.4.

4. During drilling, logging, observation, and sample collection, the lithology/samples collected should also be characterized in accordance with the four different material matrices presented in Section 6.1. In order to obtain representative data necessary for nature and extent of these matrices zones and assess volumes to remediate, sample collection should be concentrated in four basic vertical horizons, such as:
    a. Upper zone of contamination (shallowest subsurface impacts, possibly related to LNAPL)
    b. Middle zone of contamination (core, possible smear zone)
    c. Deep zone of contamination (deepest [bottom] subsurface impacts above and/or below the water table, possibly related to DNAPL)
    d. Depth of no apparent contamination/vertical extent of impact

    Baxter has included discussion related to sample collection and evaluation of these vertical horizon zones in Section 5.1.

Thank you,
Brett

Brett Feldhahn
U.S. Environmental Protection Agency | Region 10
(206) 553-2899 | feldhahn.brett@epa.gov